

2004 GALVESTON BAY INVASIVE SPECIES RISK ASSESSMENT
INVASIVE SPECIES SUMMARY

Created by: Environmental Institute of Houston, University of Houston-Clear Lake
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Common Name: Chinese tallow tree, Popcorn tree				
Latin Name: <i>Triadica sebifera</i> (syn. <i>Sapium sebiferum</i>)				
Category: Terrestrial Plant				
Place of Origin: China				
Place of Introduction: Charleston, South Carolina				
Date of Introduction: Late 1700's				
States Effected:				
Alabama	Florida	Louisiana	North Carolina	Texas
Arkansas	Georgia	Mississippi	South Carolina	
http://plants.usda.gov/cgi_bin/plant_profile.cgi?symbol=TRSE6 (Accessed 21 March 2003).				
Life History: <p>"<i>Sapium sebiferum</i> is a deciduous tree up to 12 m (40 feet) tall. Its bark is thin to medium thick. It has simple, entire, petiolate leaves. The leave blades are up to 7 cm long, are reddish when immature and green at maturity. In the fall the foliage turns red. Each leaf is broadly ovate, like a cottonwood leaf, but ends in a long tip. The sap is milky white, sticky, and <i>may be a skin irritant</i>. (This plant is in the <i>Euphorbia</i> family which includes many other toxic or unpalatable plants.) In the spring yellow-green drooping catkins are produced. These mature into greenish fruit 1-1.5 cm in diameter which blacken and split in the fall. The black exterior often falls off the tree leaving the white, lobed seeds on the branches. Seed germinate readily." http://tncweeds.ucdavis.edu/alert/alrtsapi.html (Accessed 21 March 2003).</p>				
Growth/Size: <p>"The seeds are globose-flattened, 6-9 mm in diameter...It reproduces by seeds only, but one plant can produce hundreds of seeds. The seeds seem to have a tremendous ability to germinate under adverse conditions. The plant is a fast-growing tree, hence its popularity as a shade tree ornamental" http://www.wes.army.mil/el/pmis/plants/html/triadica.html (Accessed 21 March 2003).</p>				
Habitat: <p>"Plants grow in abandoned fields, pastures, waste areas, and forests. The species grows in a wide range of environmental conditions: wet to dry and shade to full sun" http://www.wes.army.mil/el/pmis/plants/html/triadica.html (Accessed 21 March 2003).</p>				
Attitude (aggressive, etc.): <p>The fast-growing habit, massive seed production, and great seed germinability allow this species to invade areas occupied by natives. It can outcompete most natives and soon displaces them. The plants seem not to be eaten by livestock and thus dominate in pastures." http://www.wes.army.mil/el/pmis/plants/html/triadica.html (Accessed 21 March 2003).</p>				
Physical Description: <p>"Chinese tallow tree is a small to medium-sized monoecious tree. The leaves are alternate, simple, and net-veined. The petiole is long with two glands on the upper side near the blade. The blade is rhombic-ovate, entire, with an acuminate apex and a round to truncate base. Leaves of Chinese tallow tree turn red in the fall, making it a popular ornamental. The flowers are imperfect, with green sepals and no petals, and are produced in a terminal spike. The staminate flowers are terminal in the spike and the pistillate ones are near the base. The fruit is a three-locular capsule with three seeds. The seeds are globose-flattened, 6-9 mm in diameter, turn white with age, and often persist on the tree into winter." http://www.wes.army.mil/el/pmis/plants/html/triadica.html (Accessed 21 March 2003).</p>				
Management Recommendations / Control Strategies: <p>As with all prolific invaders, the key is to prevent new infestations, or at least eradicate them out as soon as they begin. 1) Flooding is not effective. <i>S. sebiferum</i> seedlings tolerate brackish water or being inundated in fresh water, but cannot survive being inundated in brackish water (i.e. 1/2 sea water). 2) <i>S. sebiferum</i> is toxic to cattle, so grazing is not an alternative. Sheep and goats have been known to eat the leaves. 3) Biocontrols are not available. 4) Burning during the dormant season (December), followed by burning or mowing during the growing season (July-August) may be effective. 5) Mechanical control, such as cutting, does not help because plants resprout vigorously from the roots. Trees standing in water may be successfully killed by cutting them below the water line.</p>				

6)Triclopyr has been effective as a cut-stump treatment (Garlon 3a), or as a basal bark paint (Garlon 4). 11% triclopyr in oil controls trees up to 15 cm dbh, taller trees require a 20% solution. Apply herbicides during the spring to minimize seed spread (see next note). Frilling using glyphosate (Rodeo) has been ineffective, but painted-stump methods work well.

7)Reports from the Texas coast (Bergan, 1998) indicate that spring herbicide applications may not be successful, and that to translocate the herbicide into the plant most effectively late summer to early fall applications should be employed.”

<http://tncweeds.ucdavis.edu/alert/alrtsapi.html> (Accessed 21 March 2003).

Agencies Collecting Data:

Gulf of Mexico Program

The Nature Conservancy

References (includes journals, agency/university reports, and internet links):

1. STPL - <http://www.wes.army.mil/el/pmis/plants/html/triadica.html>
2. TNC - <http://tncweeds.ucdavis.edu/alert/alrtsapi.html>
3. NWRC - <http://www.nwrc.usgs.gov/factshts/tallow.pdf>
4. USGS - http://www.usgs.gov/invasive_species/plw/cogongrass.html
5. IFAS - <http://aquat1.ifas.ufl.edu/sapium.html>

Available Mapping Information:

PLANTS - http://plants.usda.gov/cgi_bin/plant_profile.cgi?symbol=TRSE6

STPL - <http://www.wes.army.mil/el/pmis/plants/html/triadica.html>